



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,722	07/12/2001	Ramon Vega	60005437-1	1555

7590 10/15/2003
HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

CULLER, JILL E

ART UNIT	PAPER NUMBER
2854	

DATE MAILED: 10/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/902,722

Examiner

Jill E. Culler

Applicant(s)

VEGA, RAMON

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Objections

1. Claims 1-3, 5-6, 8-11 and 22-23 are objected to because of the following informalities:

In claim 1, on line 11, it appears that "hole" should be plural "holes" instead.

In claim 8, on line 1, it appears that "hole" should be plural "holes" instead.

In claim 11, on line 2, it appears that "hole" should be plural "holes" instead.

In claim 22, on line 13, it appears that "hole" should be plural "holes" instead.

In claim 22, on line 16, the word "and" appears to be unnecessary.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 5-6, and 12-18 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,458,211 to Wefers et al.

With respect to claims 1, 12, 15-16 and 18, Wefers et al. shows a device for printing onto a medium, 2, comprising a mesh-like substrate, 1, having multiple holes, see column 8, lines 38-42, each of the holes being configured to hold a material, 12, for application onto the medium, 2, wherein the material is a solid, see column 3, lines 56-58, a nozzle, 6, for expelling a fluid to cause the material to be applied onto the medium if the fluid is expelled onto the material by the nozzle, wherein at least one of said nozzle and said substrate is maneuverable such that the nozzle may be disposed substantially directly over at least one of the holes at a time, wherein the nozzle is operable to expel the fluid onto the material in the hole, to thereby cause the material to be applied onto the medium and print an image on the medium. See column 9, lines 46-56.

With respect to claims 2-3, Wefers et al. shows that the substrate comprises a continuous loop in a substantially circular configuration. See column 8, lines 38-42 and Figs. 1.

With respect to claims 5 and 13, Wefers et al. shows a scraper, 7, for removing excess material from the mesh-like substrate. See column 8, lines 49-51 and Fig. 1.

With respect to claim 6, Wefers et al. teaches that the fluid comprises a liquid or a gas. See column 4, lines 23-24 and column 8, lines 64-66.

With respect to claim 14, Wefers et al. shows maneuvering the substrate such that certain portions are placed under a supply bin to receive the material. See Figs. 11 and 12.

With respect to claim 17, Wefers et al. shows cleaning a substantial portion of any remaining material on the mesh-like substrate in response to the substrate requiring cleaning. See column 12, lines 59-62.

4. Claims 11 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,389,148 to Matsunaga.

With respect to claim 22, Matsunaga shows a device for printing onto a medium comprising a mesh-like substrate, 10, having multiple holes, 12, each of the holes being configured to hold a material, 14, for application onto the medium, 18, wherein the material is a liquid, see column 3, lines 6-12, a nozzle, 20, to expel a fluid to cause the material to be applied onto the medium if the fluid is expelled onto the material by the nozzle, a power source connected to the mesh-like substrate to supply electricity to the substrate whereby the material may be held within the hole by a charged attraction between the mesh-like substrate and the material, see column 3, lines 50-53, wherein at least one of the nozzle and the substrate is maneuverable such that the nozzle may be disposed substantially directly over at least one of the holes at a time, wherein the nozzle is operable to expel the fluid onto the material in the hole, to thereby cause the material to be applied onto the medium and print an image on the medium. See column 3, lines 27-32.

With respect to claim 11, Matsunaga shows that the material is configured to be held within the hole by capillary forces. See column 3, lines 12-14.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wefers et al. in view of Matsunaga.

With respect to claims 8-9, Wefers et al. teaches all that is claimed, as in the above rejection of claims 1-3, 5-6 and 12-18, except that the holes comprise a generally conical configuration or that there is a power source connected to the mesh-like substrate to supply electricity whereby the material may be held within the hold by a charged attraction between the substrate and the material.

Matsunaga shows a device having a mesh-like substrate with holes that comprise a generally conical configuration, see Fig. 4, and a power source connected to the mesh-like substrate to supply electricity whereby the material may be held within the hold by a charged attraction between the substrate and the material. See column 3, lines 50-53.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the invention of Wefers et al. using the conical holes and power source of Matsunaga in order to more consistently retain the material within the substrate.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wefers et al. in view of Matsunaga, as applied to claims 8-9 above, and further in view of U.S. Patent No. 4,205,320 to Fujii.

Wefers et al. and Matsunaga teach all that is claimed, as in the above rejection of claims 8-9, except that the supplied electricity is capable of magnetically charging the substrate so that the material may be held within the hole by a magnetically charged attraction between the substrate and the material.

Fujii teaches a substrate having ink held in the depressions when an electric field is applied to the substrate, creating a magnetic field. See column 6, lines 35-42.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the teachings of Fujii with the invention of Wefers et al. as modified by Matsunaga to create a magnetic field for holding the material in the substrate in order to better retain the material in the mesh-like substrate.

8. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wefers et al. in view of U.S. Patent No. 5,964,158 to Takahashi.

Wefers et al. teaches all that is claimed as in the above rejection of claims 1-3, 5-6, and 12-18 except for a computer readable storage medium on which is embedded one or more computer programs which implement a method for printing onto a medium.

Takahashi teaches a computer readable storage medium on which is embedded one or more computer programs which implement a method for printing onto a medium.

It would have been obvious to one having ordinary skill in the art at the time of the invention to implement the method of Wefers et al. using the computer readable storage medium as taught by Takahashi in order to be able to readily implement and control the process with a computer.

9. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunaga in view of U.S. Patent No. 4,205,320 to Fujii.

Matsunaga teaches all that is claimed, as in the above rejection of claims 11 and 22, except that the supplied electricity is capable of magnetically charging the substrate so that the material may be held within the hole by a magnetically charged attraction between the substrate and the material.

Fujii teaches a substrate having ink held in the depressions when an electric field is applied to the substrate, creating a magnetic field. See column 6, lines 35-42.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the teachings of Fujii with the invention of Matsunaga to create a magnetic field for holding the material in the substrate in order to better retain the material in the mesh-like substrate.

Response to Arguments

10. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

In response to the argument that Matsunaga does not describe the elements of claim 9, applicant is referred to the above rejection, and page 4 of the previous action where the elements of claim 9 are stated as being found in the Matsunaga reference in column 3, on lines 50-53.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

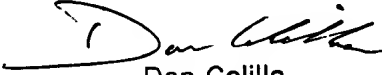
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill E. Culler whose telephone number is (703) 308-1413. The examiner can normally be reached on M-Th 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (703) 305-6619. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

jec



Dan Colilla
Primary Examiner
Art Unit 2854